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Semblanzas Ictiológicas Iberoamericanas
Franco Andrés Teixeira de Mello Ramírez

Hugo L. López
y
Justina Ponte Gómez

Indizada en la base de datos ASFA C.S.A.
2014

***"El tiempo es invención o no es nada en absoluto"*. Henri Bergson**

***"El tiempo es olvido y es memoria"*. Jorge. L. Borges**

A través de esta nueva serie tratamos de conocer diferentes aspectos personales de los integrantes de la comunidad ictiológica iberoamericana.

Esta iniciativa, comparte el espíritu y objetivo de las semblanzas nacionales buscando informalmente, otro punto de unión en la "comunidad de ictiólogos iberoamericanos".

Quizás esté equivocado en mi apreciación, pero creo que vale la pena este intento, ya que, con la colaboración generosa e insoslayable de los integrantes de este "universo", señalaremos un registro en el tiempo de la *Ictiología Neotropical*.

Hugo L. López

Imagen de Tapa
Franco Teixeira de Mello - Pesca eléctrica en el arroyo Mattrup, Dinamarca, 2010

Imagen de fondo
Porque en realidad nuestro norte es el sur, dibujo de Joaquín Torres García

Semblanzas Ictiológicas Iberoamericanas

Franco Andrés Teixeira de Mello Ramírez

Instalación de experimentos de exclusión de peces en el arroyo Gudenaa, Dinamarca, 2009

Hugo L. López y Justina Ponte Gómez

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Cuestionario

-**Un libro**: Las enseñanzas de Don Juan de Carlos Castaneda
-**Una película**: Nada es para siempre (A river run through it)
-**Un tema musical**: Cancioncilla amorosa, Eduardo Mateo
-**Un artista**: Eduardo Mateo
-**Un deporte**: pesca
-**Un color**: rojo
-**Una comida**: asado
-**Un animal**: pez
-**Una palabra**: libertad
-**Un número**: 7
-**Una imagen**: mi hermano (1982-2011)
-**Un lugar**: Tacuarembó
-**Una estación del año**: verano
-**Un nombre**: Iara
-**Un hombre**: mi padre
-**Una mujer**: Dani
-**Un personaje de ficción**: Homero Simpson
-**Un superhéroe**: mi madre

Tararira - Tararira
que arisca y sabia que estás
anzuelo que cae al agua
mojarra que te llevás
pica pica Tararira
plata viva del juncal
mientras no se corte el hilo
junto al agua me hallarás...

Osiris Rodríguez Castillo

Noche en Las Cañas
Franco Teixeira de Mello con su esposa Dani, río Uruguay, República Oriental del Uruguay, 2009

Franco Teixeira de Mello con su esposa Dani y su hija Iara , Pan de Azúcar, Río de Janeiro, Brasil, 2013

Journal of Fish Biology (2006) **69**, 1770–1778
doi:10.1111/j.1095-8649.2006.01245.x, available online at http://www.blackwell-synergy.com

Ontogenetic allometric coefficient changes: implications of diet shift and morphometric traits in *Hoplias malabaricus* (Bloch) (Characiforme, Erythrinidae)

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This study evaluated the relationship between body size and digestive tract characteristics of the important predatory freshwater fish *Hoplias malabaricus*, which is widely distributed in South America. The allometric coefficients were calculated for the mass and standard length (L_S) relationships for two different L_S groups: (1) between 20 and 100 mm (characterized as insectivores) and (2) >100 mm (characterized as piscivores). Differential growth measured from the allometric coefficient, b, between the insectivore ($b < 3$) and the piscivore ($b > 3$) groups was detected. Anterior intestine length and pyloric caeca zone length showed significant differences between groups. Two complementary hypotheses were developed to explain the differential growth: (1) *H. malabaricus* has a digestive tract adapted to a piscivorous diet, which is independent of its ontogenetic stage of development, and (2) the negative allometry observed in group 1 individuals agrees with a general behavioural strategy, allowing individuals to grow in L_S during a shorter period of time.

Key words: allometric coefficient; diet shift; *Hoplias malabaricus*; ontogenetic changes; South America.

INTRODUCTION

The lack of basic biological knowledge about neotropical fish communities and the implications for the development of management and conservation measures have been deplored by many researchers (Menni *et al.*, 1984; Buti, 1995; Buti & Miquelarena, 1995; Vari & Malabarba, 1998; Lizama & Ambrósio, 2002). Analyses of mass–length relationships contribute to reducing this lack of knowledge.

The allometric coefficient of the mass–length relationships is influenced by, among other factors, the quantity and quality of the ingested food. Many

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Substantial differences in littoral fish community structure and dynamics in subtropical and temperate shallow lakes

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SUMMARY

1. Fish play a key role in the functioning of temperate shallow lakes by affecting nutrient exchange among habitats as well as lake trophic structure and dynamics. These processes are, in turn, strongly influenced by the abundance of submerged macrophytes, because piscivorous fish are often abundant at high macrophyte density. Whether this applies to warmer climates as well is virtually unknown.

2. To compare fish community structure and dynamics in plant beds between subtropical and temperate shallow lakes we conducted experiments with artificial submerged and free-floating plant beds in a set of 10 shallow lakes in Uruguay (30°–35°S) and Denmark (55°–57°N), paired along a gradient of limnological characteristics.

3. The differences between regions were more pronounced than differences attributable to trophic state. The subtropical littoral fish communities were characterised by higher species richness, higher densities, higher biomass, higher trophic diversity (with predominance of omnivores and lack of true piscivores) and smaller body size than in the comparable temperate lakes. On average, fish densities were 93 ind. m^{-2} (±10 SE) in the subtropical and 10 ind. m^{-2} (±2 SE) in the temperate lakes. We found a twofold higher total fish biomass per unit of total phosphorus in the subtropical than in the temperate lakes, and as fish size is smaller in the former, the implication is that more energy reaches the littoral zone fish community of the warmer lakes.

4. Plant architecture affected the spatial distribution of fish within each climate zone. Thus, in the temperate zone fish exhibited higher densities among the artificial free-floating plants while subtropical fish were denser in the artificial submerged plant beds. These patterns appeared in most lakes, regardless of water turbidity or trophic state.

5. The subtropical littoral fish communities resembled the fish communities typically occurring in temperate eutrophic and hypertrophic lakes. Our results add to the growing evidence that climate warming may lead to more complex and omnivory-dominated food webs and higher density and dominance of smaller-sized fish. This type of community

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PRIMARY RESEARCH PAPER

Community structure of fish in lowland streams differ substantially between subtropical and temperate climates

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Abstract Fish are important in the structuring of other communities and may have large effects on the functioning of aquatic ecosystems. The structure of fish communities, in turn, seems to differ with climate. We compared the characteristics of fish assemblages in lowland streams located in two contrasting climates (cold-temperate Europe and subtropical South America) by use of published and unpublished data on streams of similar depth, width, and slope (n total = 91 streams). We also selected a subset of seven comparable little-affected streams in the two contrasting climates: temperate (Denmark, 55°–57°N, Dk) and subtropical (Uruguay, 30°–35°S, Uy) and compared the fish community structures in relation to environmental characteristics. We then analysed a series of potential explanatory factors behind the patterns observed, in particular the effect of ambient temperature, by comparing temperature-corrected community metabolism. Significantly higher species richness, higher densities, lower biomass, smaller mean body size, and lower mean weight of fish were observed for the subtropical streams than for the temperate streams, both in the literature review and in the subset of streams. Several characteristics of fish assemblages in streams may be explained by direct and indirect effects of temperature. Accordingly, fish in subtropical systems had a

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Monitoring fish communities in wadeable lowland streams: comparing the efficiency of electrofishing methods at contrasting fish assemblages

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Abstract Electrofishing is considered a reliable tool to assess the assemblages and biodiversity of fish in wadeable streams. The most widely used electrofishing techniques (point [P], single-pass [S-P], and multiple-pass [M-P]) vary as to the effort needed for sample collection, and this may potentially influence the degree of accuracy. Moreover, little is known about the comparability of the methods and their specific performance in streams with different fish assemblages. The aim of this investigation was to validate (using M-P sampling as reference) the use of P and S-P electrofishing techniques to accurately assess the richness, density and size distribution of fishes in small streams at both regional and global scale independently of fish assemblages and geographical region. We sampled 50-m-long reaches in a total of 33 lowland stream reaches that were located in different climatic and biogeographical regions (Uruguay and Denmark) and hosted different fish assemblages. Subtropical fish communities exhibited higher richness (Uy: 12–32, Dk: 1–9) and densities (Uy: 1.3–5.2, DK: 0.1–4.9 in. m^{-2}) than temperate streams. We applied both "global models" using the entire database (33 sites) and "local models" including the same number of sites but using the climatic region as a model variable. Regression analyses revealed that the P, S-P and M-P methods all provided an adequate picture of the species composition and size distribution, and transfer equations for comparison between methods are thus not required. Conversely, richness was better predicted by S-P and by P techniques for regional and global models, respectively. Transfer equations obtained for abundance revealed that the P and S-P models can accurately transform catch data

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